MODEL PAPER MATHEMATICS GENERAL CLASS 9

Note: Attempt all questions of Section A by filling the corresponding bubble on the MCQs RESPONSE SHEET. It is mandatory to return the attempted MCQs sheet to the Superintendent within given time.

SECTION-A

Q1: Choose the correct option. Allowed time 20 minutes

Maximum Marks 15

1. Ratio between 4 grams and 12 grams in simplest form is
   a. 1:1 b. 1:2 c. 1:3 d. 1:4
2. If X:3 : : 8:6 is a proportion then X = _ _ _
   a. 4 b. 6 c. 8 d. 24
3. Zakat payable on Rs. 50000 is _ _ _
   a. Rs. 1300 b. Rs. 1240 c. Rs. 1250 d. Rs. 1215
4. If cost price is Rs. 430 and sale price is Rs. 488. The profit is Rs. _ _ _
   a. 56 b. 58 c. 48 d. 68
5. Marked price is Rs. 550. Sale price is Rs. 418. Discount percentage is
   a. 24% b. 22% c. 21.5% d. 23%
6. Markup is the profit received by
   a. Customer b. Bank c. Government d. Organization
7. Property Tax = Rate X _ _ _ _
   a. Price of item b. Value of property
   C .Excise Duty d. Capital value tax
8. GST stands for _ _ _ _ _ _ _ _
   a. General Sales Tax b. Government Standard Tax
   C .Government Simple Tax d. Grand Service Tax
9. $X^m * X^n$ = _ _ _ _
   a. X^{mn} b. X^{m+n} c. $X^{m/n}$ d. $X^{n/m}$
10. $\text{Log}_2 X = 3$, then X = _ _ _ _
    a. 8 b. 9 c. 6 d. 23
11. Arithmetic mean between 6 and 2 is _ _ _ _ _
    a. 8 b. 4 c. 12 d. 6
12. Geometric mean between 3 and 27 is _ _ _ _ _
    a. ±4 b. ±6 c. ±9 d. ±81
13. (A')' = _ _ _ _
    a. A' b. Empty Set c. A d. U
14. The point (-3 , 4) is located in
    a. 1st Quadrant b. 2nd Quadrant c. 3rd Quadrant d. 4th Quadrant
15. In the data {2, 3, 7, 2, 9, 4}, mode is _ _ _ _

a. 3 b. 1 c. 9 d.

SECTION – B

Time: 2Hours 40 Minutes **Marks: 36**

Q1. Attempt any 9 of the following short questions. Each question carries equal marks.

1. Hafsa got 84% of the total marks in her annual examination. If she had obtained 861 marks. Find out total marks in the examination?
2. Hafeez had trade goods worth Rs.175,000 and a cash amount of Rs. 90,000. If his wife possessed jewelry worth Rs. 84,000, find the amount of zakat payable by him?
3. Ali bought 8 dozen eggs at the rate of Rs. 70 per dozen. 6 eggs were found broken. He sold remaining eggs at the rate of Rs. 7 per egg. Find his profit or loss.
4. Mr. Jawad deposits Rs. 90,000 in a Profit Loss Saving (PLS) account. If the profit rate is 12% then how much profit would he get after two months
5. If the worth of the property of a person is Rs. 5,000,000. How much tax would he pay at the rate of 5%.
6. Simplify: $\sqrt{\frac{X^b}{X^c}}$ X $\sqrt{\frac{X^c}{X^a}}$ X $\sqrt{\frac{X^a}{X^b}}$
7. $\log_8 x = \frac{4}{3}$
8. Find the 10th term of an Arithmetic Progression (AP) 18, 15, 12, 9,. . .
9. Find three geometric means between $\frac{1}{27}$ *and* 3.
10. Plot the points W,X,Y and Z in the XY plane: W(3,1), X(-2,-4), Y(-5,6), Z(3,-3).
11. Salam has a post-paid connection. Last month he consumed a total of 3 hours and 20 minutes time for calls. If per 30 seconds call charges is Rs.0.50, then what was his bill?
12. If X = {1, 2, 3} and Y={4, 5, 6}, Write an ONTO function from X to Y

SECTION – C

Marks: 24

Note: Attempt any three of the following. Each question carries equal marks.

Q2. 12 men take 5 hours to spray insecticides on fruit trees spread over 40 hectares. How many men will be required to spray 32 hectares area in 8 hours?

Q3. Draw the graph of equation: 3x + y = 6

Q4. From the following distribution

Daily Wages (In Rupees)	112 – 116	117 – 121	122 – 126	127 – 131	132 – 136
Number of Workers	3	20	11	4	5

i. Construct a table.
ii. Find the class boundaries for each group
iii. Calculate Median wages.

Q5. If U = {1, 2 ,3 ,4, 5, 6, 7}, A = {1,2, 3}, B = {3, 4, 5}. Then with the help of Venn diagram verify Demorgan's Law: (A U B)' = A'∩ B'